

Amendments to the Specification

Please replace the paragraph at page 9, lines 18-22, with the following:

-- Figure 2 presents a map of the JEV genome (top), the DNA sequence of oligonucleotides (SEQ ID NOs: 1, 3, 4) used in a reverse transcriptase-polymerase chain reaction (PCR) (center) to construct the transcription unit for the expression of prM-E protein coding regions (bottom). Potential transmembrane domains of viral polyprotein are indicated by shaded areas. The amino acid sequences (SEQ ID NOs: 2 and 5) encoded by the oligonucleotides are also shown. --

Please replace the paragraph at page 9, line 23 through page 9, line 4, with the following:

-- Figure 3 shows a schematic representation of the plasmid vectors, pCDNA3, pCBamp, and pCIBamp, and the relationship between them. These plasmids include the CMV (cytomegalovirus) promoter/enhancer element, BGHp(A) (bovine growth hormone polyadenylation signal and transcription termination sequence), ampicillin resistance gene and ColE1 origin of replication for selection and maintenance in *E. coli*. The f1 origin of replication for single-stranded rescue in *E. coli* cells, SV40 origin replication (SV40 ORI), neomycin resistance coding region, and SV40p(A) sequences were deleted from pCDNA3 to generate pCBamp. An intron sequence was inserted in the NcoI-KpnI site of pCBamp to generate plasmid pCIBamp. The multiple cloning site (SEQ ID NO: 7) for the insertion of genes for flaviviral structural proteins, located between the TATA box (SEQ ID NO: 6) of the CMV promoter/enhancer and BGHp(A), is shown. --

Please replace the paragraph at page 10, lines 14-18, with the following:

-- Figure 6 is a map of the yellow fever virus (YFV) genome (top) and the DNA sequence of oligonucleotides (SEQ ID NOs: 8, 10, 11) (center) used in a reverse transcriptase-PCR to construct the transcription unit for the expression of YFV prM-E protein coding regions (bottom). Potential transmembrane domains of viral polyprotein are indicated by shaded areas. The amino acid sequences (SEQ ID NOs: 9 and 12) encoded by the oligonucleotides are also shown. --

Please replace the paragraph at page 10, lines 19-23, with the following:

-- Figure 7 is a map of the St. Louis encephalitis virus (SLEV) genome (top) and the DNA sequence of oligonucleotides (SEQ ID NOs: 13, 15, 16) (center) used in a reverse transcriptase-PCR to construct the transcription unit for the expression of SLEV prM-E protein coding regions (bottom). Potential transmembrane domains of viral polyprotein are indicated by shaded areas. The amino acid sequences (SEQ ID NOs: 14 and 17) encoded by the oligonucleotides are also shown. --

Please replace the paragraph at page 19, lines 3-27, with the following:

-- Example 1. Preparation of recombinant plasmids containing the transcriptional unit encoding JEV prM and E antigens. Genomic RNA was extracted from 150 μ L of JEV strain SA 14 virus seed grown from mouse brain using a QIAAMPTMQIAampTM Viral RNA Kit (Qiagen, Santa Clarita, CA). RNA, adsorbed on a silica membrane, was eluted in 80 μ L of nuclease-free water, and used as a template for the amplification of JEV prM and E gene coding sequences. Primer sequences were obtained from the work of Nitayaphan et al. (1990). A single cDNA fragment containing the genomic nucleotide region 389-2478 was amplified by the reverse transcriptase-polymerase chain reaction (RT-PCR). Restriction sites KpnI and XbaI, the consensus Kozak ribosomal binding sequence, and the translation initiation site were engineered at the 5' terminus of the cDNA by primer 14DV389 (SEQ ID NO:1). An in-frame translation termination codon, followed by a NotI restriction site, was introduced at the 3' terminus of the cDNA by primer c14DV2453 (SEQ ID NO: 2) (see Figure 2). One-tube RT-PCR was performed using a Titan RT-PCR Kit (Boehringer Mannheim, Indianapolis, IN). 10 μ L of viral RNA was mixed with 1 μ L each of 14DV389 (50 μ M) and c14DV2453 (50 μ M) and 18 μ L of nuclease-free water and the mixture was heated at 85°C for 5 min and then cooled to 4°C. 75 μ L of reaction mix [20 μ L 5x buffer, 2 μ L of dNTP mixture (10 mM each), 5 μ L of dithiothreitol (0.1 mM), 0.5 μ L of RNASINTMRNasinTM RNase inhibitor (40 U/ μ L, Boehringer Mannheim), 2 μ L of polymerase mixture, and 45.5 μ L of nuclease-free water] was added and RT-PCR performed as follows: 1 cycle (50°C for 30 min, 94°C for 3 min, 50°C for 30 s, 68°C for 2.5 min), 9 cycles (94°C for 30 s, 50°C for 30 s, 68°C for 2.5 min), 20 cycles (94°C for 30 s, 50°C for 30 s, 68°C for 2.5 min in the first cycle, with an increment of 5 s per cycle thereafter), and a final extension at 68°C for 15 min. The RT-PCR product was purified by a

QIAquickQIAQUICK™ PCR Purification Kit (Qiagen) and eluted with 50 µL of 1 mM Tris-HCl, pH 7.5. --

Please replace the paragraph at page 33, line 1 through page 34, line 7, with the following:

-- Example 9. Preparation of recombinant plasmids containing coding sequences for yellow fever virus (YFV) or St. Louis encephalitis virus (SLEV) prM and E proteins. A strategy similar to constructing the pCDJE2-7 recombinant plasmid was used to prepare YFV and SLEV recombinant plasmids. Genomic RNA was extracted from 150 µL of YFV strain TRI-788379 or SLE strain 78V-6507 virus seeds using QIAAMP™QIAamp™ Viral RNA Kit (Qiagen, Santa Clarita, CA.). The viral RNA was used as a template for amplification of YFV or SLEV prM and E gene coding regions. Primer sequences and structures of the amplified YFV and SLEV DNA products are shown in Figures 6 and 7, respectively. RT-PCR amplified cDNA, digested with KpnI and NotI enzymes, was inserted into the KpnI-NotI site of a eukaryotic expression plasmid vector, pCDNA3 (Invitrogen). Both strands of the cDNA were sequenced and verified for identity to sequences from YFV strain TRI-788379 or SLEV strain 78V-6507 (unpublished; Chang, 1998). Recombinant plasmids pCDYF2 and pCDSLE4-3, which contained the nucleotide sequences of the prM and E coding regions for YFV or SLEV, respectively, were purified using an ENDOFREE™ EndoFree™ Plasmid Maxi Kit (Qiagen), and used for *in vitro* transformation or mouse immunization. --

Substitute Sequence Listing

Please replace the previously submitted sequence listing with the sequence listing enclosed herewith. A statement in compliance with 37 C.F.R. § 1.821 (f) is included herewith.